Tennessee Department of Environment and Conservation
General Aquatic Resource Alteration Permit for
Natural Resource Conservation Service-Designed
Streambank Stabilization as a Federal Action

Effective Date: December 18, 2020
Expiration Date: April 7, 2025

Activities Covered by this Permit

This General Permit authorizes aquatic alterations conducted in accordance with a site-specific design developed through full application of the Natural Resource Conservation Service (NRCS) Conservation Practice Standard 580 (Tennessee) and NRCS Engineering Field Handbook, Chapter 16 Streambank and Shoreline Protection (NRCS Streambank Standards), and subject to NRCS oversight as a federal action.

Certain activities due to size, location or potential water quality impacts are not covered under this General Permit, as described below in the General Conditions section. Activities not qualifying for authorization under this General Permit may be authorized by a standard (individual) permit provided that all requirements of the *Tennessee Water Quality Control Act of 1977* (the *Act*) are met.

Definitions

"Engineering job approval authority" is the quality assurance process that ensures adequate consideration by competent NRCS employees in the planning, design, and installation of conservation engineering practices that, with proper operation and maintenance, will perform the intended functions for the planned practice service life. Engineering job approval authority additionally serves to maintain the credibility and trust of NRCS engineering with State engineering boards of licensure and with the public. Each NRCS employee providing engineering technical assistance must be assigned an appropriate engineering job approval authority based upon training, experience, and demonstrated competence.

"Lifespan" means the period of time during which a conservation practice or activity should be maintained and used for the intended purpose.

"Federal Action" means actions that are subject to Federal (NRCS) control and responsibility (e.g., those that are financed, funded, assisted, conducted, regulated, or approved by NRCS). These actions do not include situations in which NRCS is only providing technical assistance because NRCS cannot control what the client ultimately does with that assistance and situations where NRCS is making a technical determination (such as Farm Bill HEL or wetland conservation determinations) not associated with the planning process.

"NRCS Site-Specific Design" means all NRCS conservation practice standards are planned and implemented according to features and conditions of the specific project site.

"Operation and maintenance" (O&M) means work performed by the participant to keep the applied conservation practice functioning for the intended purpose during the conservation practice lifespan. Operation includes the administration, management, and performance of non-maintenance actions needed to keep the completed practice functioning as needed. Maintenance includes work to prevent deterioration of the practice, repairing damage, or replacement of the practice to its original condition if one or more components fail.

"O&M agreement" means the document that, in conjunction with the plan of operations, specifies the O&M responsibilities of the participant for the conservation practices installed through this general permit.

"Revetment" means bank protection by armor, that is, by facing of bank or embankment with non-vegetative erosion resistant material.

Special Conditions

All designs must be developed with full application of the NRCS Streambank Standards and be subject to NRCS oversight as a federal action. This includes, but is not limited to, the following required design considerations excerpted from the NRCS Conservation Practice Standard 580 (Tennessee):

1. When designing protective measures, consideration should be given to the changes that may occur in the watershed hydrology and sedimentation over the design life of the measure. Measures shall be designed to avoid an increase in natural erosion downstream.
2. Consider utilizing debris removed from the channel or streambank into the treatment design when it is compatible with the intended purpose to improve habitats for fish, wildlife, and aquatic systems. Habitat forming elements that provide cover, food, pools, and water turbulence shall be retained or replaced in the channel to the extent possible.
3. Rock riprap revetments and other structural measures can often be terminated at the 2-year return period elevation while using bioengineering, erosion control blankets, turf reinforcement mats, native grasses, tree and shrub plantings, etc. on the rest of the slope.
4. Consider using conservation practice designs that extend rock riprap revetments and other structural measures beyond the 2-year return period elevation if soil conditions are encountered where:
    a. It is very difficult to establish vegetation;
    b. The site has overland flow problems;
    c. The site is located below a hydroelectric flood control dam;
    d. The frequent discharges make it very difficult to establish vegetation; or,
    e. Watershed changes have caused extreme watershed discharges (urbanization, clear cutting, etc.).
5. Consider using conservation practice designs that extend rock riprap revetments and other structural measures beyond the 2-year return period elevation if the project site has a small bank height, and it will be difficult or unpractical to construct the measures at or below the 2-year return period elevation.
6. Vegetative components shall be established along the stream corridor as necessary for ecosystem functioning and stability. Vegetation components should be designed to prevent excessive long-term channel migration.
7. Utilize vegetative species that are native and/or compatible with local ecosystems. Consider species that have multiple values such as those suited for biomass, nuts, fruit, browse, nesting, aesthetics, and tolerance to locally used herbicides.
8. Consider the use of shrub species from the water line to the constructed top of slope. Consider the use of larger trees from the top of bank out into the floodplain area.
9. Livestock exclusion should be considered during establishment of vegetation and appropriate grazing practices applied after establishment to maintain plant community intergrity.
10. Consider maintaining or improving the habitat value for fish and wildlife by including measures that provide aquatic habitat in the measure design and that may lower or moderate water temperature and improve water quality.
11. Consider aquatic habitat when selecting the type of bank stabilization.
12. Consider using toe rock that is large enough to provide a stable base and graded to provide aquatic habitat. The stone required for aquatic habitat may be larger than would normally be required of a stabilization measure.
13. All aquatic alterations implemented through this general permit shall comply with the NRCS 580 Operation and Maintenance Plan.

Coverage under this General Permit will not be granted if any element of the NRCS Streambank Standards has not been applied to the design, unless the applicant demonstrates that equivalent measures have been applied and approved by an individual with NRCS job approval authority **and accepted** by TDEC.

General Conditions

1. The amount of fill, stream channel and bank modifications, or other impacts associated with the activity shall be limited to the minimum necessary to accomplish the project purpose. The permittee shall utilize the least impactful practicable method of construction.
2. All activities must be accomplished in conformance with the approved plans, specifications, data and other information submitted in support of the ARAP application (form CN-1091) (except where no application is required as specified below) and the limitations, requirements and conditions set forth herein. Failure to comply with the terms and conditions of this General Permit is a violation of the Act.
3. Activities, either individually or cumulatively, that may result in an appreciable permanent loss of resource values to streams or wetlands are not covered. This general permit shall not be used incrementally to combine with other activities resulting in an appreciable permanent net loss of water resource values.
4. Clearing, grubbing, and other disturbance to riparian vegetation shall be kept at the minimum necessary for slope construction and equipment operations. Unnecessary native riparian vegetation removal, including tree removal, is prohibited. Native riparian vegetation must be reestablished in all areas of disturbance outside of any permanent authorized structures after work is completed. Coverage under this permit does not serve to waive any local riparian buffer protection requirement, and permittees are responsible for obtaining any necessary local approval.
5. This activity may not result in the permanent disruption to the movement of fish or other aquatic life upon project completion.
6. Blasting within 50 feet of any jurisdictional stream or wetland is prohibited.
7. Activities that directly impact wetlands, or impair surface water flow into or out of any wetland areas are not covered.
8. Activities located in a component of the National Wild and Scenic River System or waters designated as Outstanding National Resource Waters are not covered.
9. Activities occurring in known or likely habitat of state or federally listed threatened, endangered, deemed in need of management, or species of special concern may not be authorized without prior coordination with the Tennessee Wildlife Resources Agency (TWRA) and TDEC Division of Natural Areas (DNA) to determine if any special conditions are required to avoid and/or minimize harm to the listed species or their habitat. Adverse effects to federally-listed threatened and endangered species are not authorized by this permit. Permittee is responsible for obtaining require prior authorization from the United States Fish and Wildlife Service (USFWS) as required by Section 7 or Section 10 under the Endangered Species Act.
10. Work shall not commence until the permittee has obtained all necessary authorizations pursuant to applicable provisions of Section 10 of The Rivers and Harbors Act of 1899, section 404 of The Clean Water Act, section 26a of The Tennessee Valley Authority Act, section 402 of the Clean Water Act (including, but not limited to, an NPDES permit for construction stormwater), or any other federal, state, or local laws.
11. Backfill activities must be accomplished in the least impactful manner possible that stabilizes the streambed and banks to prevent erosion. The completed activities may not disrupt or impound stream flow.
12. The use of monofilament-type erosion control netting or blanket is prohibited in the stream channel, stream banks, or any disturbed riparian areas within 30 feet of top of bank.
13. This permit does not authorize impacts to cultural, historic, or archaeological features or sites.
14. This permit does not authorize access to public or private property. Arrangements concerning the use of public or private property shall be made with the landowner. The permittee is responsible for obtaining any additional permitting or maintenance agreements with other government or public agencies or lands.
15. Where practicable, all activities shall be accomplished in the dry. All surface water flowing toward this work shall be diverted using cofferdams and/or berms constructed of sandbags, clean rock (containing no fines or soils), steel sheeting, or other non-erodible, non-toxic material. All such diversion materials shall be removed

upon completion of the work. Any disturbance to the stream bed or banks must be restored to its original conditions. As approved after Division review, activities may be conducted in the flowing water if working in the dry will likely cause additional degradation. Any work conducted in the flowing water must be for a short duration and with minimal impact and conform to the Division-approved methodology.

16. All activities must be carried out in such a manner as will prevent violations of water quality criteria as stated in TDEC Rule 0400-40-03, or impairment of the uses of waters of the state as designated by Rule Chapter 0400-40-04.
17. Erosion prevention and sediment control measures must be in place and functional before any earth moving operations begin, and shall be designed according to the department's *Erosion and Sediment Control Handbook* (http://tnepsc.org/handbook.asp). Permanent vegetative stabilization using native species of all disturbed areas in or near the stream channel must be initiated within 14 days of project completion (see also *Landscaping with Natives* at tneppc.org). Non-native, non-invasive annuals may be used as cover crops until native species can be established.
18. Temporary stream crossings shall be limited to one point in the construction area and erosion control measures shall be utilized where stream bank vegetation is disturbed. Stream beds shall not be used as transportation routes for mechanized equipment, rather, the stream channel may be crossed perpendicularly with equipment provided no additional fill or excavation is necessary.
19. Written notification of the commencement of authorized work shall be provided to the local TDEC Environmental Field Office prior to, or within 24 hours after initiation of the approved work.

Obtaining General Permit Coverage

Eligible applicants for coverage under this General Permit are the landowner or other entity that is subject to the federal action. The applicant for coverage is not NRCS.

Coverage under this General Permit is evaluated through consideration of a complete ARAP application (form CN-1091) with appropriate fee payment, site-specific design plans including an executed NRCS 580 Operation and Maintenance Contract, and General Permit Affirmation Statement prepared by an individual with NRCS job approval authority for completing the submitted site-specific design package. The Affirmation Statement (Appendix A) has been developed by TDEC and reflects elements of NRCS Streambank Standards considered critical in support of coverage under the General Permit. However, notwithstanding the elements of the Affirmation Statement, all designs must be developed and implemented with full application of the standards identified in NRCS Streambank Standards.

Work shall not commence until a written Notice of Coverage (NOC) from the division is received. TDEC will issue a Notice of Coverage (NOC), or communicate in writing the reason(s) the application does not qualify as an activity that is appropriately covered by the General Permit.

Each Notice of Coverage under this general permit is valid until the expiration date specified on the NOC. If the General Permit is modified, reissued, or revoked, and the permittee has commenced or is under contract to commence this activity before the expiration date, the permittee may have up to twelve (12) months from the date of the modification, reissuance, or revocation of the General Permit to complete the activity under the present terms and conditions of the general permit.

An application fee as established in Rule 0400-40-11-.02 will be assessed to applicants intending to receive an NOC to conduct activities under this general permit. An annual maintenance fee will be assessed to those individuals receiving an NOC unless a Notice of Termination (NOT) form is received prior to the one-year anniversary of the issuance date of the NOC.

Terminating General Permit Coverage

A NOT form (CN-1450) must be completed by the applicant and submitted to TDEC along with the required photodocumentation, As-Built documentation as described in NRCS 580 Statement of Work, and a NRCS-generated certificate that the installation meets NRCS standards and specifications and is in compliance with permits. This certificate must be signed and dated by an individual with adequate NRCS Engineering Approval Authority. A NOT form can be downloaded from the division's ARAP webpage.

https://www.tn.gov/environment/permit-permits/water-permits1/aquatic-resource-alteration-permit--arap-.html

APPROVED: _____ DATE: December 18, 2020

Jennifer Dodd
Director, Division of Water Resources